UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Bey 1459.

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NOTICE OF ALLOWANCE AND FEE(S) DUE

53806 7590 05/20/2009

MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL (AMD) P.O. BOX 398

AUSTIN. TX 78767-0398

EXAMINER JOHNSON, BRIAN P

ART UNIT PAPER NUMBER

2183 DATE MAILED: 05/20/2009

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNEY DOCKET NO.
 CONFERMATION NO.

 10/700,033
 11/03/2003
 Greery William Smaus
 5500-91600
 3398

TITLE OF INVENTION: INSTRUCTION CACHE PREFETCH BASED ON TRACE CACHE EVICTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	08/20/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THE APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE: shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

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APPLICATION NO.	FILING DATE			FIRST NAMED INVENTO	R	ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/700,033	11/03/2003			Greory William Smau	1		5500-91600	3398
TITLE OF INVENTION:	INSTRUCTION CACI	E PRE	EFETCH BASED	ON TRACE CACHE EV	ICTION			
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	ondence address (or Cha V122) attached.			(1) the names of up or agents OR, alterna	to 3 registered pater tively.	nt attori	neys I	
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3. ASSIGNEE NAME AT								
PLEASE NOTE: Unle recordation as set forth	ess an assignee is ident in 37 CFR 3.11. Comp	fied be	low, no assignee of this form is NO	data will appear on the T a substitute for filing a	patent. If an assign n assignment.	ee is io	dentified below, the do	cument has been filed for
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Please check the appropri	ate assignee category or	catego	ries (will not be pr	inted on the patent):	Individual 🗆 C	orporati	ion or other private gro	up entity Government
4a. The following fee(s) a	are submitted:		46	. Payment of Fee(s): (Pl		ny prev	viously paid issue fee	hown above)
Issue Fee				A check is enclosed				
☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit are					iciency, or credit any			
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Authorized Signature					Date			
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This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C iality is governed by 35 application form to the ons for reducing this bu- irginia 22313-1450. DC 13-1450.	FR 1.3 U.S.C. USPT den, st NOT	11. The information 122 and 37 CFR O. Time will vary acould be sent to the SEND FEES OR C	on is required to obtain on 1.14. This collection is a depending upon the independent of the complex of the com	retain a benefit by stimated to take 12 ividual case. Any co cer, U.S. Patent and IO THIS ADDRES:	the pub minute omment Trader S. SEN	lic which is to file (and s to complete, includin ts on the amount of tir nark Office, U.S. Depa D TO: Commissioner I	by the USPTO to process) g gathering, preparing, and ne you require to complete atment of Commerce, P.O. for Patents, P.O. Box 1450,

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/700,033	11/03/2003	Greory William Smaus	5500-91600	3398	
53806 75	90 05/20/2009		EXAM	EXAMINER	
MEYERTONS, I	HOOD, KIVLIN, KO	JOHNSON, BRIAN P			
P.O. BOX 398		ART UNIT	PAPER NUMBER		
AUSTIN, TX 78767-0398			2183		
		DATE MAILED: 05/20/200	,0		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 653 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 653 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)
10/700,033	SMAUS ET AL.
Examiner	Art Unit
BRIAN P. JOHNSON	2183

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative

- of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to 28 January 2009. The allowed claim(s) is/are 1-23. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2. Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08). Paper No./Mail Date 9/7/06
- 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7.

 Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- Other . /Eddie P Chan/

Supervisory Patent Examiner, Art Unit 2183

Application/Control Number: 10/700,033 Page 2

Art Unit: 2183

Allowable Subject Matter

Claim 1-28 allowed.

2. The following is an examiner's statement of reasons for allowance: Applicant's

independent claims disclose a caching system that evicts entries from a trace cache

and, in response, completes a prefetch from system memory. The demotion system of

Darcy is the most closely related prior art. Applicant's most recent amendments,

however, require that the prefetch occurs from the low level system memory and

disclose a connection between the eviction and prefetching. These amendments

appropriately address the concerns presented in the advisory action filed 07 January

2009 and, therefore, the claims are allowable over the art of record.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

3. A correction has been made to the IDS considerations on 19 May 2006, as a

date was not provided for reference A8.

Conclusion

Application/Control Number: 10/700,033

Art Unit: 2183

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN P. JOHNSON whose telephone number is (571)272-2678. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eddie P Chan/ Supervisory Patent Examiner, Art Unit 2183 /Brian Johnson/ Patent Examiner, Art Unit 2183